National Institute of Environmental Health Sciences

Prior heat illness hospitalization and risk of early death

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Abstract:

Previous evidence suggests that severe heat illness may cause permanent acute damage to the heart, kidneys, and liver, which may possibly lead to chronic and even fatal disorders. We investigated whether individuals who had been hospitalized for severe heat illness were at increased risk of cause-specific and total mortality. A cohort mortality study was conducted of male and female US Army personnel hospitalized for heat illness (HI) from 1971 to 2000 using appendicitis (APX) as the reference. Hospitalization records were acquired from the Total Army Injury and Health Outcomes Database (TAIHOD) for 3971 cases of HI and 17,233 APX reference cases. Subject vital status was established through the National Death Index. HI cases had a 40% increased risk of all-cause mortality compared to APX cases. Further examining cause-specific deaths, male cases of HI were at an increased rate of death from cardiovascular disease (CVD) (rate ratio (RR)Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)1.71, 95% confidence interval (CI): 1.01, 2.89) and ischemic heart disease (IHD) (RREuro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)2.23, 95% CI: 1.02, 4.90) compared to APX reference cases. Our findings provide preliminary evidence for increased risk of mortality among those who have experienced prior hospitalization for heat illness.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Injury

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content